

IN THE CLAIMS:

Please cancel claims 34-43 without prejudice.

1-23. (Canceled).

24. (ORIGINAL) A method of forming electroplated solder on an organic circuit board for making flip chip joints and board to board solder joints, comprising: providing an organic circuit board including a surface bearing electrical circuitry that includes at least a contact pad; forming a solder mask layer on said surface, said solder mask being patterned to expose said contact pad; forming a thin metal seed layer over said surface, said seed layer being solely made of a first metal material; forming a resist layer with at least one opening located at said contact pad that is deposited over said seed layer; forming a solder bump in said opening by electroplating, said solder bump containing at least said first metal material; and removing said resist layer and said seed layer beneath said resist layer; wherein said seed layer beneath said solder bump dissolves completely into said solder bump after a reflow process, and disappears.

25. (ORIGINAL) The method of claim 24, wherein said first metal material is selected from a group consisting of copper and tin.

26. (ORIGINAL) The method of claim 24, wherein said seed layer has a thickness less than 0.005 millimeter.

27. (ORIGINAL) The method of claim 24, wherein said seed layer is made of physical vapor deposition method.

28. (ORIGINAL) The method of claim 24, wherein said seed layer is made of chemical vapor deposition method.

29. (ORIGINAL) The method of claim 24, wherein said seed layer is made of electroless plating method.
30. (ORIGINAL) The method of claim 29, further comprising a step before forming said thin metal seed layer:
coating the surfaces of the solder mask and the contact pad with aqueous solutions which at least contains copper ions and then performing a reduction process of said copper ions to form a thin copper film on said surfaces, wherein there is no reduction of noble metal ions.
31. (ORIGINAL) The method of claim 30, wherein said noble metal is selected from a group consisting of palladium, gold and silver.
32. (ORIGINAL) The method of claim 24, further comprising a step before forming said thin metal seed layer:
forming a barrier layer on said contact pad.
33. (ORIGINAL) The method of claim 32, wherein said barrier layer is made of metals selected from a group consisting of copper, tin, nickel, chromium, titanium, copper-chromium alloy, tin-lead alloy, and alloys thereof.
- 34-43 (Canceled).
44. (NEW) The method of claim 24, wherein said organic circuit board includes insulative layers made of an organic material.
45. (NEW) The method of claim 44, wherein said organic material is selected from the group consisting of epoxy resin, polyimide, bismaleimide triazine, cyanate ester, polybenzocyclobutene, and a glass fiber composite.